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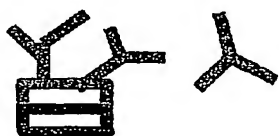
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(54) Title: **ENZYME ARRAY AND ASSAY**

Coupling procedures for proteins on surfaces

Random coupling



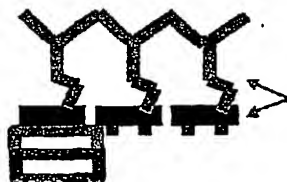
BCCP-fusion-biotin

Neutravidin

PEG-PLL-biotin

Amine coupling

Ordered coupling



PEG-PLL

(57) Abstract: The present invention relates to an enzyme array and assay for use with a mass spectrometer, particularly, though not exclusively, a laser desorption/ ionisation, such as a MALDI mass spectrometer. It includes a method of determining the activity of an enzyme, or the effect a test compound has on the activity of the enzyme, using mass spectrometry comprising: providing a probe carrying an immobilised enzyme; optionally introducing the test compound; introducing one or more reactants to the immobilised enzyme for a time, and in a form sufficient for a reaction to take place; drying the probe; subjecting the probe to mass spectrometry; and determining the activity of the enzyme, or the effect the test compound had on the activity of the enzyme, by detecting the presence and/ or absence of one or more products and/ or the one or more reactants and is exemplified with reference to a kinase assay. It also provides an array for use with the method.



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